Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain is a prolactin-antagonist domain and the positive immunomodulator domain is a cytokine.

2. (Canceled)

3. (Previously Presented) The method according to claim 1, wherein the positive immunomodulator domain is an interleukin.

4. (Previously Presented) The method according to claim 3, wherein the interleukin is an IL-2.

5. (Previously Presented) The method according to claim 3, wherein the positive immunomodulator domain is an IL-12.

6. (Previously Presented) The method according to claim 3, wherein the positive immunomodulator domain IFNγ.

7. (Previously Presented) A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the protein is a prolactin antagonist-interleukin 2 fusion protein.

8. (Currently Amended) **The method of claim 1,** ~~A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain,~~ wherein the prolactin-antagonist domain has an arginine at position 129 of the prolactin protein.

9. (Currently Amended) **The method of claim 1,** ~~A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain,~~ wherein the prolactin-antagonist domain comprises a protein comprising the amino acid sequence of SEQ ID NO. 1.

10. (Previously Presented) The method according to claim 2, wherein the prolactin-antagonist domain comprises a truncated prolactin sequence.

11. (Withdrawn) A protein, comprising a receptor antagonizing domain and a positive immunomodulator domain.

12. (Withdrawn) A protein according to claim 11, wherein the receptor antagonizing domain is an apoptosis-promoting domain.

13. (Withdrawn) A protein according to claim 12, wherein the apoptosis-promoting domain is a prolactin-antagonist domain.

14. (Withdrawn) A protein according to claim 12, wherein the positive immunomodulator domain is an interleukin.

15. (Withdrawn) A protein according to claim 14, wherein the interleukin is interleukin 2 (IL-2).

16. (Withdrawn) A protein according to claim 14, wherein the positive immunomodulator domain is IL-12.

17. (Withdrawn) A protein according to claim 14, wherein the positive immunomodulator domain is IFNγ.

18. (Withdrawn) A protein according to claim 12, wherein the protein is a prolactin antagonist-interleukin 2 (hPRLA-IL-2) fusion protein.

19. (Withdrawn) A protein according to claim 13, wherein the prolactin-antagonist domain is characterized by a single amino acid substitute from Glycine to Arginine at position corresponding to 129 of the prolactin domain.

20. (Withdrawn) A protein according to claim 13, wherein the prolactin-antagonist domain comprises a protein having the amino acid sequence of SEQ ID NO.: 01 (hPRLA), or a conservative variant thereof.

21. (Withdrawn) A protein according to claim 13, wherein the prolactin-antagonist domain comprises a truncation of a native prolactin sequence or a conservative variant thereof.

22. (Previously Presented) The method according to claim 1, wherein cells of the cancer overexpress a prolactin receptor at levels greater than in normal, healthy cells.

23. (Withdrawn) A protein comprising a first domain having the amino acid sequence of SEQ ID NO.: 01, or a conservative variant sequence thereof, and a positive immunomodulator domain.

24. (Previously Presented) A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain is an apoptosis-promoting domain.

25. (Currently Amended) The method according to claim 24, wherein the apoptosis-promoting domain inhibits STAT3 phosphorylation in a cell to which the apoptosis-promoting domain binds**, and the positive immunomodulator domain is a cytokine**.

26. (Withdrawn) A protein according to claim 12, wherein the apoptosis-promoting domain functions by inhibiting STAT3 phosphorylation in a targeted cell.

27. (Withdrawn) A pharmaceutical composition comprising a therapeutically useful amount of the protein of claim 11 and a suitable amount of carrier vehicle.

28. (Previously Presented) A method for inducing an immune response in an individual that has cancerous cells, comprising administering to said individual a protein comprising (i) a prolactin-antagonist domain and (ii) an immunomodulatory domain, wherein said immunomodulatory domain is a cytokine.

29. (Previously Presented) The method of claim 28, wherein said prolactin-antagonist domain comprises a protein consisting essentially of the amino acid sequence of SEQ ID NO. 1.

30. (Currently Amended) The method of **claim 28** ~~claim 29~~, wherein said **prolactin-antagonist domain comprises a protein that** consists **essentially of** SEQ ID NO. 1 ~~comprises~~ **having** one or more conservative amino acid substitutions**, and wherein said protein that consists essentially of SEQ ID NO:1 having one or more conservative amino acid substitutions retains binding to a prolactin receptor and disrupts the normal endocrine function of prolactin**.

31. (Currently Amended) The method of claim 28, wherein said prolactin-antagonist domain comprises a protein consisting essentially of a part of the amino acid sequence of SEQ ID NO. 1**, and wherein said protein that consists essentially of a part of the amino acid sequence of SEQ ID NO:1 retains binding to a prolactin receptor and disrupts the normal endocrine function of prolactin**.

32. (Currently Amended) The method of **claim 28,** ~~claim 31,~~ wherein said **prolactin antagonist domain comprises a protein consisting essentially of a** part of SEQ ID NO. 1 ~~comprises~~ **having** one or more conservative amino acid substitutions**, and wherein said protein that consists essentially of a part of SEQ ID NO:1 having one or more conservative amino acid substitutions retains binding to a prolactin receptor and disrupts the normal endocrine function of prolactin**.

33. (Previously Presented) The method of claim 28, wherein said prolactin-antagonist domain comprises a protein consisting essentially of the amino acid sequence of SEQ ID NO. 1, wherein the amino acid at position 129 of SEQ ID NO. 1 is not glycine.

34. (Previously Presented) The method of claim 28, wherein the amino acid at position 129 of SEQ ID NO. 1 is arginine.

35. (Previously Presented) The method of claim 28, wherein said cancerous cells express prolactin receptors at a level greater than that of normal, healthy cells.

36. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is selected from the group consisting of IL-2, IL-12, and IFNγ.

37. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is IL-2.

38. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is IL-12.

39. (Previously Presented) The method of claim 28, wherein said immunomodulatory domain is IFNγ.

40. (Previously Presented) A method for inducing an immune response in an individual that has cancerous cells, comprising administering to said individual a protein comprising (i) a domain that binds to a receptor expressed on a cancer cell altering the function of said receptor, and (ii) another domain that elicits an immune response that is targeted to said cancer cell.

41. (Previously Presented) The method of claim 40, wherein the domain that binds to a receptor expressed on a cancer cell is an apoptosis-promoting domain.

42. (Currently Amended) The method of claim 41, wherein the apoptosis-promoting domain inhibits STAT3 phosphorylation in the cancer cell bearing the receptor to which the apoptosis-promoting domain binds**, and the domain that elicits and immune response is a cytokine**.

43. (Previously Presented) The method of claim 9, wherein SEQ ID NO. 1 comprises one or more conservative amino acid substitutions.

44. (Previously Presented) The method of claim 10, wherein said truncated prolactin sequence comprises one or more conservative amino acid substitutions.

45. (Previously Presented) The method of claim 40, wherein the domain that binds to a receptor expressed on a cancer cell is a prolactin antagonist domain.

46. (Previously Presented) The method of claim 45, wherein the prolactin-antagonist domain has an arginine at position 129 of the prolactin protein.

47. (Previously Presented) The method of claim 46, wherein the prolactin-antagonist domain comprises a protein comprising the amino acid sequence of SEQ ID NO. 1.

48. (Currently Amended) The method of claim 40, wherein the domain that binds to a receptor expressed on a cancer cell is a growth hormone antagonist domain**, and the domain that elicits an immune response that is targeted to said cancer cell is a positive immunomodulator domain**.

49. (Previously Presented) The method of claim 48, wherein the growth hormone antagonist domain has an amino acid substitution at position 120 of a human growth hormone.

50. (Previously Presented) A method for treating cancer, comprising administering to a patient that has cancer a protein that comprises a receptor-antagonizing domain and a positive immunomodulator domain, wherein the receptor-antagonizing domain is a growth hormone antagonist domain.

51. (Previously Presented) The method according to claim 50, wherein the positive immunomodulator domain is an interleukin.

52. (Previously Presented) The method according to claim 50, wherein the interleukin is an IL-2.

53. (Previously Presented) The method according to claim 50, wherein the positive immunomodulator domain is an IL-12.

54. (Previously Presented) The method according to claim 50, wherein the positive immunomodulator domain IFNγ.

55. (Previously Presented) The method of claim 50, wherein the protein is a growth hormone antagonist-interleukin 2 fusion protein.

56. (Previously Presented) The method of claim 50, wherein the growth hormone antagonist domain has an amino acid substitution at position 120 of the human growth hormone protein.

57. (Previously Presented) A method for inducing an immune response in an individual that has cancerous cells, comprising administering to said individual a protein comprising (i) a growth hormone antagonist domain and (ii) an immunomodulatory domain.

58. (New) The method of claim 56, wherein the positive immunomodulator domain is a cytokine.

59. (New) The method of claim 48, wherein the positive immunomodulator domain is a cytokine.

60. (New) The method of claim 49, wherein the domain that elicits an immune response that is targeted to said cancer cell is a cytokine.